

**6FH8****6FH8****MEDIUM-MU TRIODE—
THREE-PLATE TETRODE**

9-PIN MINIATURE TYPE

*For harmonic-generator applications***GENERAL DATA****Electrical:**

Heater, for Unipotential Cathode:

Voltage (AC or DC) $6.3 \pm 10\%$ volts

Current 0.45 amp

Direct Interelectrode Capacitances:⁰*Triode Unit:*Grid to plate 1.4 $\mu\mu\text{f}$ Grid to cathode & heater. 2.6 $\mu\mu\text{f}$ Plate to cathode & heater 1 $\mu\mu\text{f}$ *Tetrode Unit:*Grid No.1 to plate No.1 0.06 max. $\mu\mu\text{f}$ Grid No.1 to cathode & heater,
plate No.3, plate No.2,
and grid No.2 4.5 $\mu\mu\text{f}$ Plate No.1 to cathode & heater,
plate No.3, plate No.2,
and grid No.2 1.4 $\mu\mu\text{f}$ Tetrode grid No.1 to triode plate . . . 0.35 max. $\mu\mu\text{f}$ Tetrode plate No.1 to triode plate. . . 0.008 max. $\mu\mu\text{f}$ **Characteristics, Class A₁ Amplifier:***Triode Unit*

Plate Voltage 100 volts

Grid Voltage. -1 volt

Amplification Factor. 40

Plate Resistance (Approx.). 7400 ohms

Transconductance. 5400 μmhos

Plate Current 7.9 ma

Grid Voltage (Approx.) for plate
 $\mu\text{a} = 100$ -7 volts*Tetrode Unit with plates No.2
and No.3 connected to cathode*

Plate-No.1 Voltage. 250 volts

Grid-No.2 Voltage 250 volts

Grid-No.1 Voltage -2 volts

Plate-No.1 Resistance (Approx.) 0.75 megohm

Transconductance, Grid No.1
to Plate No.1 4400 μmhos

Plate-No.1 Current. 7.3 ma

Grid-No.2 Current 1.4 ma

Grid-No.1 Voltage (Approx.) for
plate-No.1 $\mu\text{a} = 100$ -7 volts⁰ With external shield JEDEC No.315 connected to cathode.

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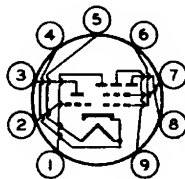
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MEDIUM-MU TRIODE— THREE-PLATE TETRODE

Mechanical:

Operating Position. Any
 Maximum Overall Length. 2-3/16"
 Maximum Seated Length. 1-15/16"
 Length, Base Seat to Bulb Top (Excluding tip). 1-9/16" $\pm$ 3/32"
 Diameter. 0.750" to 0.875"
 Dimensional Outline. See General Section
 Bulb. T6-1/2
 Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW. 9KP

Pin 1—Tetrode
 Plate No.3
 Pin 2—Triode Grid
 Pin 3—Triode Plate
 Pin 4—Heater,
 Cathode
 Pin 5—Heater



Pin 6—Tetrode
 Grid No.1
 Pin 7—Tetrode
 Grid No.2
 Pin 8—Tetrode
 Plate No.2
 Pin 9—Tetrode
 Plate No.1

HARMONIC-GENERATOR SERVICE

Maximum Ratings, Design-Maximum Values:

	Triode Unit	Tetrode Unit	
PLATE VOLTAGE.	275 max.	—	volts
PLATE-No.1 VOLTAGE	—	275 max.	volts
PLATE-No.2 VOLTAGE	—	200 max.	volts
PLATE-No.3 VOLTAGE	—	200 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE	—	275 max.	volts
GRID-No.2 VOLTAGE.	—	See Grid-No.2 Input	

Rating Chart at front of Receiving Tube Section

GRID-No.1 (CONTROL- GRID) VOLTAGE:			
Negative-bias value. . .	40 max.	40 max.	volts
Positive-bias value. . .	0 max.	0 max.	volts
GRID-No.2 INPUT:			
For grid-No.2 voltages up to 137.5 volts. . .	—	0.45 max.	watt
For grid-No.2 voltages between 137.5 and 275 volts.	—	See Grid-No.2 Input	

Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION.	1.7 max.	—	watts
PLATE-No.1 DISSIPATION . .	—	2.3 max.	watts
PLATE-No.2 DISSIPATION . .	—	0.3 max.	watt
PLATE-No.3 DISSIPATION . .	—	0.3 max.	watt



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Typical Operation:

Tetrode Unit with separate plate operation

Plates—No.1, No.2, and No.3 Voltage	100	volts
Grid—No.2 Voltage	50	volts
Grid—No.1 Voltage	-1	volt
Plate—No.1 Current.	1.6	ma
Plate—No.2 Current.	0.04	ma
Plate—No.3 Current.	0.04	ma
Grid—No.2 Current	0.3	ma
Transconductance (Approx.):		
Grid No.1 to plate No.1	2500	μ mhos
Grid No.1 to plate No.2	70	μ mhos
Grid No.1 to plate No.3	70	μ mhos

Maximum Circuit Values:

Triode Unit Tetrode Unit

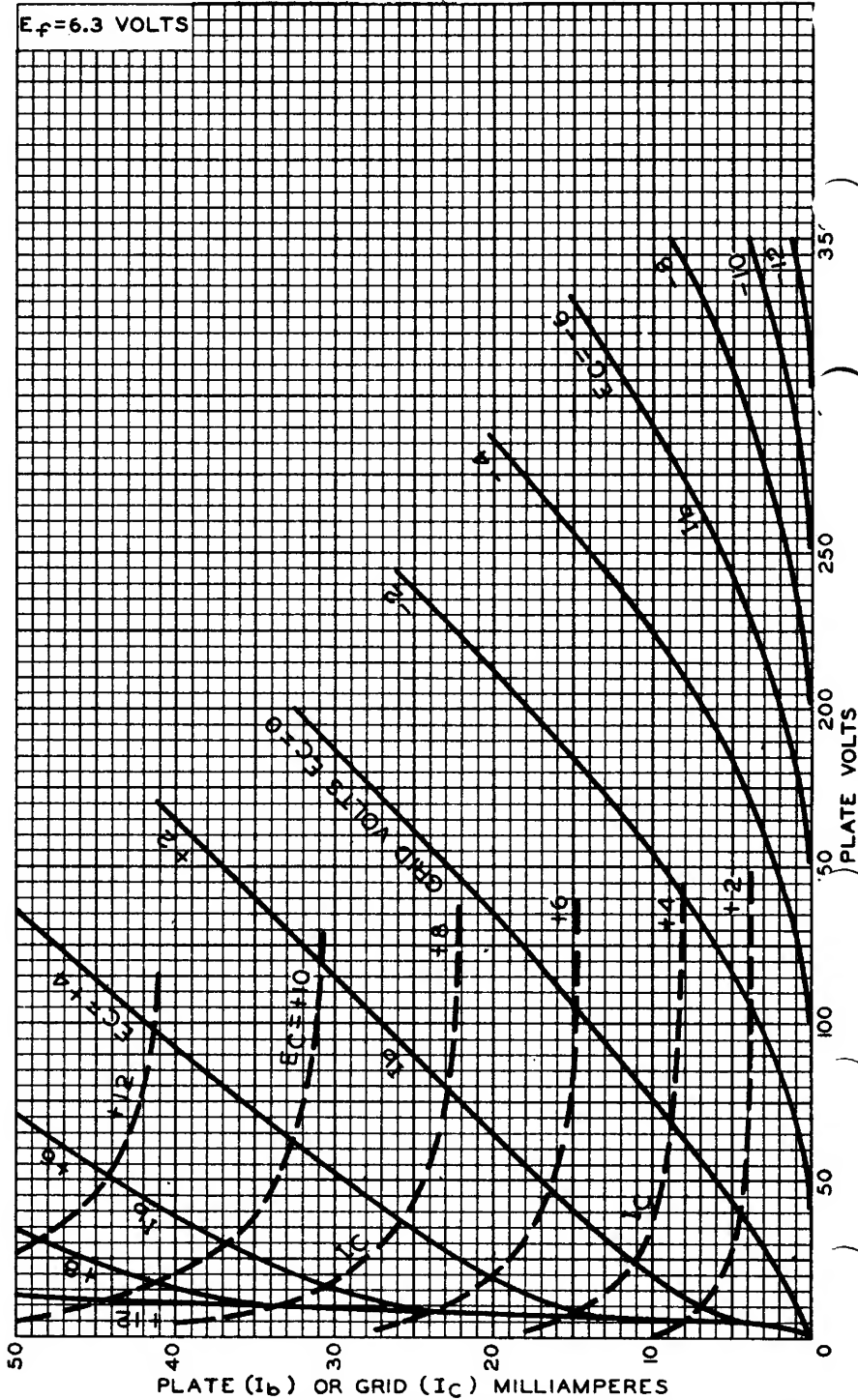
Grid—No.1—Circuit			
Resistance:			
For fixed-bias			
operation.	0.5 max.	0.5 max.	megohm

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AVERAGE CHARACTERISTICS TRIODE UNIT



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RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

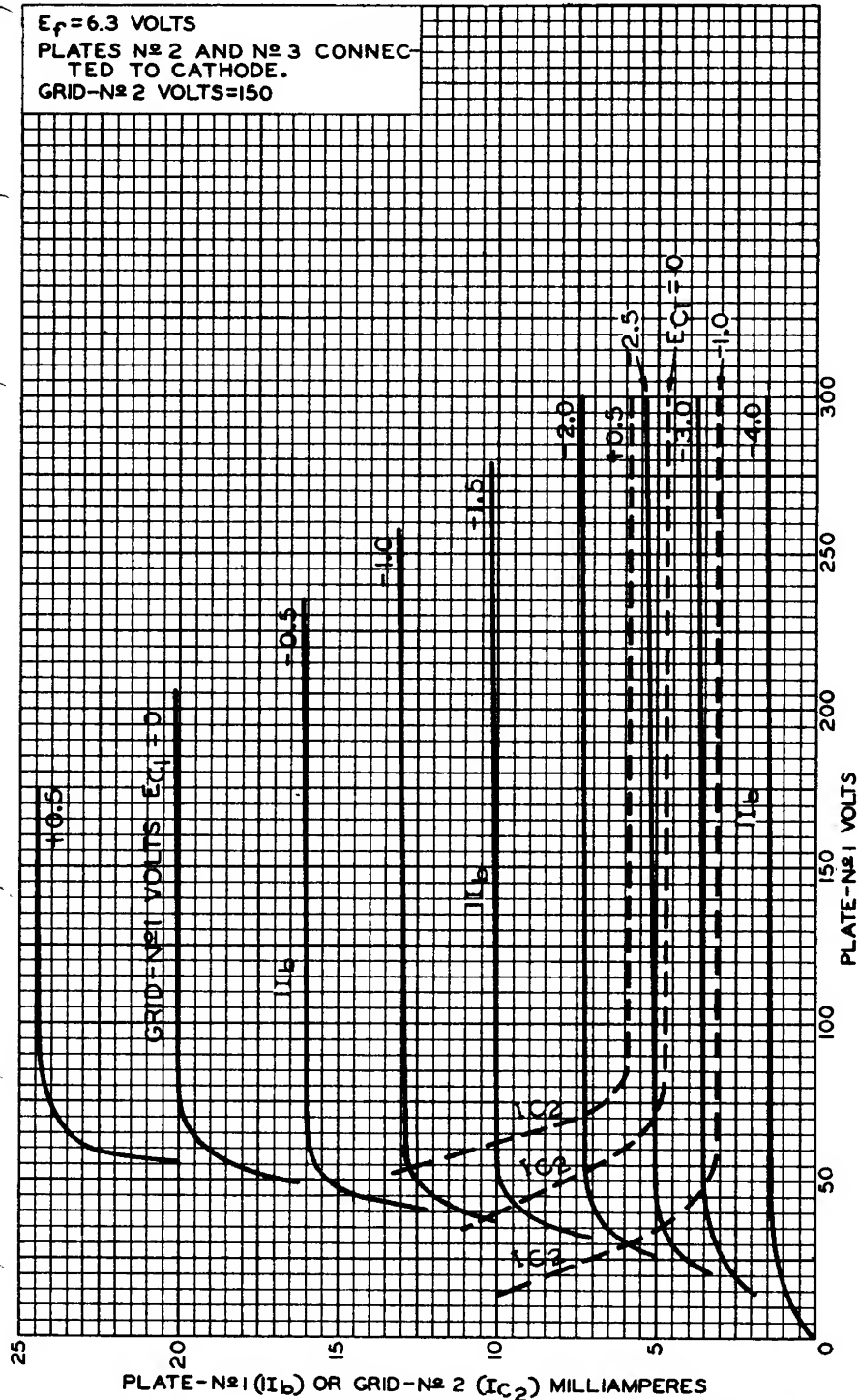
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AVERAGE CHARACTERISTICS
TETRODE UNIT

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